

Recombinant E.coli glycerol dehydrogenase, NAD, His-tagged

Cat. No. gldA-601E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	gldA, 1-367aa, E. coli, His tag, E.coli
Species	E.coli
Source	E.coli
ProteinLength	1-367 a.a.
Description	gldA catalyzes the NAD-dependent oxidation of glycerol to dihydroxyacetone (glycerone). This protein allows microorganisms to utilize glycerol as a source of carbon under anaerobic conditions. In E.coli, an important role of GldA is also likely to regulate the intracellular level of dihydroxyacetone by catalyzing the reverse reaction, i.e. the conversion of dihydroxyacetone into glycerol. gldA possesses a broad substrate specificity, since it is also able to oxidize 1,2-propanediol and to reduce glycolaldehyde, methylglyoxal and hydroxyacetone into ethylene glycol, lactaldehyde and 1,2-propanediol, respectively. Recombinant E. coli gldA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Form	Liquid. In Phosphate buffered saline (pH7.4), 10% glycerol
Molecular Mass	41.1 kDa (390aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMDRIIQS PGKYIQGADV INRLGEYLKP LAERWLVVGD KFVLGFAQST VEKSFKDAGL VVEIAPFGGE CSQNEIDRLR

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GIAETAQCGA ILGIGGGKTL DTAKALAHFM GVPVAIAPTI ASTDAPCSAL
 SVIYTDEGEF DRYLLLPNNP NMVIVDTKIV AGAPARLLAA GIGDALATWF
 EARACSRSGA TTMAGGKCTQ AALALAEELCY NTLLEEGEKA MLAAEQHVVT
 PALERVIEAN TYLSGVGFES GGLAAAHAVH NGLTAIPDAH HYYHGEKVAF
 GTLTQLVLEN APVEEIETVA ALSHAVGLPI TLAQLDIKED VPAKMRIVAE
 AACAEGETIH NMPGGATPDQ VYAALLVADQ YGQRFLQWE

Purity >95% by SDS - PAGE

Storage Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [gldA?glycerol dehydrogenase, NAD \[?Escherichia coli str. K-12 substr. MG1655?\]](#)

Official Symbol [gldA](#)

Synonyms [gldA](#); [ECK3937](#); [JW5556](#); [glycerol dehydrogenase, NAD](#); [NP_418380.4](#); [EC 1.1.1.6](#); [glycerol dehydrogenase, \(NAD\)](#)

Gene ID [948440](#)

Protein Refseq [NP_418380](#)

Pathway [Glycerolipid metabolism](#); [Metabolic pathways](#); [superpathway of methylglyoxal degradation](#)

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